SYSTEM AND METHOD FOR MEDIAN FUSION OF DEPTH MAPS

ABSTRACT OF THE DISCLOSURE

[0033]   The present invention is directed toward providing a system for constructing a graphical representation of an image, as perceived from a desired view, from a plurality of calibrated views. An optimum, median fused depth map of a new, desired view of an object or a scene is constructed from a plurality of depth maps of the object or scene, utilizing median values for each of the image pixels within the image domain of the new view. Each of the known depth maps are rendered into the new view, and the pixels of the rendered image are processed one at a time until a median value for each pixel in the new view of the image of the object or scene is calculated. The calculated median values are then assembled into a median fused depth map of the new view of the object or scene, with the median fused depth map available to construct a new two or three dimension images and models of the object or scene as perceived from the new view.